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EXAMINER

TRUONG, THANHNGA B

ART UNIT	PAPER NUMBER
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2135

DATE MAILED: 01/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/392,564

Applicant(s)

TAKAHASHI ET AL.

Examiner

Thanhnga Truong

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 September 1999.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-4, 6-7 are rejected under 35 U.S.C. 102(e) as being anticipated by Kori (US 6,480,607).

a. Referring to claim 1:

i. Kori teaches:

(1) a reproduction apparatus [i. e., **Figure 4**]

(a) for reproducing video/audio information recorded in a storage medium [**i.e., for reproducing data recorded on a recording medium (column 3, line 60-65)**], comprising:

(b) an encryption system detection means for detecting whether the video or audio information recorded in said storage medium is encrypted or not in accordance with a predetermined encryption system [**i.e., encryption means, that is “an encryption system detection”, for encrypting the data reproduced by the reproducing means (column 5, line 45-50); and the compressed picture data or compressed speech data, recorded on this optical disc D, is encrypted by a predetermined encrypting key, that is “for detecting whether the video or audio information recorded in said storage medium is encrypted or not” (column 2, line 8-10)**];

(c) an electronic watermark detection means for detecting an electronic watermark information indicative of a copy management

information, including at least copy prohibition which is superimposed onto the video or audio information, in case where the video or audio information recorded in said storage medium is not encrypted in accordance with the predetermined encryption system [i.e., **the watermark detection/re-encoding unit, that is “an electronic watermark detection”, detects the copyright control information superimposed on the picture data by watermark processing. The detected copyright control information specifies one of “copy free”, “one copy”, “no more copy”, or “never copy”. The watermark detection/re-encoding unit sends the detected copyright control information to the output controller (column 9, line 66-67 and column 10, line 1-6). Furthermore, the watermark processing is the processing of burying the information as a noise in a perceptually non-crucial portions present in the picture or music data, which is “electronic/digital data”, that is in the non-redundant portions with respect to the music or the picture (column 1, lines 27-31)], and;**

(d) a reproduction restricting means for controlling reproduction of the video or audio information in accordance with said copy management information, when any of the copy management information is detected upon a detection result by said watermark detection means, in a case where the video or audio information recorded in said storage medium is not encrypted in accordance with the predetermined encryption system [i.e., **if the watermark detection/re-encoding unit detects the copyright control information other than “one copy”, the reproduction device, that is for “controlling reproduction of the video or audio information in accordance with said copy management information”, outputs the detected copyright control information to outside via switch without doing re-encoding (column 10, line 12-17)].**

b. Referring to claim 2 which depends on claim 1:

i. Kori teaches:

(1) A reproduction apparatus [i.e., **Figure 4**], comprising:

(a) an information analysis means for analyzing whether the video or audio information recorded in said storage medium is a regular

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video or audio [i.e., that is, there are superimpose on the picture data "copy free", specifying that picture or music data recorded on the recording medium or transmitted can be copied, "one copy", specifying that only one copying operation is possible, "no more copy" specifying that data has been copied from the above "one copy" data (column 8, line 45-50)] or not [i.e., or "never copy" specifying that copying cannot be permitted (column 8, line 50-51)], from which the electronic watermark can be detected in the watermark detection circuit, in the case where the video or audio information recorded in said storage medium is not encrypted in accordance with the predetermined encryption system [i.e., the watermark detection/re-encoding unit, that is "an electronic watermark detection", detects the copyright control information superimposed on the picture data by watermark processing (column 9, line 66-67). The compressed picture data or compressed speech data, recorded on this optical disc D, is encrypted by a predetermined encrypting key, that is "for detecting whether the video or audio information recorded in said storage medium is encrypted or not" (column 2, line 8-10)], wherein

(b) said reproduction restricting means controls the reproduction of the video or audio information, also when it is not decided to be the regular video or audio information from which the watermark can be detected [i.e., if the watermark detection/re-encoding unit detects the copyright control information other than "one copy", the reproduction device, that is for "controls the reproduction of the video or audio information", outputs the detected copyright control information to outside via switch without doing re-encoding (column 10, line 12-17)].

c. Referring to claim 3:

i. Kori teaches:

(1) A decoding apparatus [i.e., Figure 4; the data processing device 30 includes a first CSS decoder 31, a second CSS decoder 32, an MPEG decoder 33, a media type decoder 34, a watermark (WM) detection/re-

encoding unit 35, an output controller 36 and switches 37, 38 (column 9, lines 24-28)],

(a) a decryption designation input means for indicating a necessity of decryption of encrypted data in accordance with if an input code data is encrypted or not [i.e., referring to Figure 4, the first CSS decoder 31, that is “for indicating a necessity of decryption of encrypted data in accordance with if an input code data is encrypted or not”, performs decryption in accordance with the algorithm matched to the first CSS encoder 21 or using the matched encryption key (column 11, line 12-14)], comprising:

(b) a decryption means for restoring an original video or audio information which is coded by decrypting the input code data which is encrypted [i.e., decrypting means for doing decrypting matched to encrypting of the playback control data received by the reception means (column 5, line 55-58)];

(c) a selecting means for switching between an output of said decryption means and an output without using said decryption means [i.e., referring to Figure 4, the data processing device 30 includes a first CSS decoder 31, a second CSS decoder 32, an MPEG decoder 33, a media type decoder 34, a watermark (WM) detection/re-encoding unit 35, an output controller 36 and switches 37, 38, that is “a selecting” (column 9, lines 24-28)];

(d) a decoding means for decoding the coded video or audio information, which is outputted from said selecting means [i.e., referring to Figure 4, the data processing device 30 includes a first CSS decoder 31, that is “a decoding”, a second CSS decoder 32, that is “a decoding”, an MPEG decoder 33, a media type decoder 34, a watermark (WM) detection/re-encoding unit 35, an output controller 36 and switches 37, 38 (column 9, lines 24-28)];;

(e) an electronic watermark detection means for detecting a watermark information indicative of a copy management information, including at least copy prohibition which is superimposed onto the video or audio information [i.e., the watermark detection/re-encoding unit, that is “an electronic watermark detection”, detects the copyright control information superimposed on

the picture data by watermark processing. The detected copyright control information specifies one of “copy free”, “one copy”, “no more copy”, or “never copy”. The watermark detection/re-encoding unit sends the detected copyright control information to the output controller (column 9, line 66-67 and column 10, line 1-6)]; and

(f) a reproduction restricting means for controlling reproduction of the video or audio information in accordance with said copy management information, when any of the copy management information is detected upon a detection result by said electronic watermark detection means, in case of decoding the coded video or audio information which is inputted, directly without using said decryption means [i.e., if the watermark detection/re-encoding unit detects the copyright control information other than “one copy”, the reproduction device, that is for “controlling reproduction of the video or audio information in accordance with said copy management information”, outputs the detected copyright control information to outside via switch without doing re-encoding (column 10, line 12-17)].

d. Referring to claim 4 which depends on claim 1:

i. Kori teaches:

(1) a reproduction apparatus [i. e., Figure 4],
comprising:

(a) a medium and format deciding means for deciding a kind from a plurality of storage mediums and a recording format thereof [i.e., the media type information is the information specifying whether the optical disc is the read-only ROM disc or a recordable RAM disc and the optical disc drive includes two CSS (Content Scrambling System) encoders (column 8, line 55-65)],
wherein,

(b) said encryption system detection means detects whether the data on said medium is encrypted or not in accordance with the encryption system which is corresponding to each of the kinds of said plurality of storage medium and the recording format thereon [i.e., encryption means, that is “an

encryption system detection”, for encrypting the data reproduced by the reproducing means (column 5, line 45-50); and the compressed picture data or compressed speech data, recorded on this optical disc D, is encrypted by a predetermined encrypting key, that is “for detecting whether the data on said medium is encrypted or not in accordance with the encryption system” (column 2, line 8-10)], and,

(c) a reproduction restricting means for controlling reproduction of the video or audio information in accordance with said copy management information, when any of the copy management information is detected upon a detection result by said watermark detection means, in a case that the video or audio information is not encrypted in accordance with an encryption system which is predetermined for each of the kinds of said plurality of storage mediums and the recording format thereon [i.e., **if the watermark detection/re-encoding unit detects the copyright control information other than “one copy”, the reproduction device, that is for “controlling reproduction of the video or audio information in accordance with said copy management information”, outputs the detected copyright control information to outside via switch without doing re-encoding (column 10, line 12-17)]**].

e. Referring to claim 6:

i. This claim has limitations that is similar to those of claim 1, thus it is rejected with the same rationale applied against claim 1 above.

f. Referring to claim 7:

i. This claim has limitations that is similar to those of claim 4, thus it is rejected with the same rationale applied against claim 4 above.

ii. Kori further teaches:

(1) reproduction of the video or audio information is stopped, in a case if not being encrypted in accordance with the encryption system corresponding to the kind of the storage medium and the recording format on said storage medium, which are decided in said medium and format deciding operation [i.e., **to the third CSS decoder 51, control data for copyright control is sent from the**

data processing device 60 via an input interface, not shown. This control data is already encrypted using algorithms or encryption keys different from those for the picture data etc and the media type information. This third CSS decoder 51 performs corresponding decrypting operations to halt the optical disc reproducing operation, based on the control data contents (column 12, lines 36-43)].

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kori as applied to claim 3 above, and further in view of Traw (US 5,949,877).

a. Referring to claim 5:

i. Kori teaches the claimed subject matter per claim 3 above except for:

(1) AKE (Authentication and Key Exchange) means for conducting an authentication between a supply device of the input code data and key exchange necessary for decryption

ii. However, Traw teaches:

(1) AKE (Authentication and Key Exchange) Subsystem is responsible for implementing the protocols which are used to ensure that devices exchanging protected content are compliant (**column 9, line 30-40**).

iii. It would have been obvious to a person having ordinary skill in the art at the time the invention was made to:

(1) include such AKE subsystem (in Kori) to further detect and protect digital content from violating the copyright protection and/or other misuse

during the transferring between devices in accordance with the decryption system (**see Traw's abstract**).

iv. The ordinary skilled person would have been motivated to:

(1) add this AKE circuit in accordance with the decryption system (such as Kori's Data Processing Device - Figure 4, 5, 6, and 7) for safeguarding against unauthorized duplication (column 1, line 15 of Kori).

Response to Argument

5. Applicant's arguments filed November 3, 2003 have been fully considered but they are not persuasive.

Applicant argues that:

"Applicant's disclosed and claimed invention operates differently from Kori et al. More particularly, Kori et al. is concerned with ALWAYS providing dual encryptions between a disc drive unit and a data processing unit (see items 21, 22, 32, 31 in Kori et al.'s FIG. 4). In contrast, Applicant's disclosed and claimed invention (e.g., claim 1) first detects whether or not an incoming stream is encrypted or not. Further, Applicant's invention then has watermark detection/protection which kicks in when Applicant's encryption system detection means detects that an incoming stream is not encrypted. More particularly, attention is directed to the Applicant's FIG. 2 chart for a specific listing of such operations. Other ones of Applicant's claims have similar or analogous features/limitations. In short, Applicant's disclosed and claimed arrangement is neither disclosed nor suggested by Kori et al, and such deficiency is not cured by combination with Traw et al."

Examiner maintains that:

Kori disclosed a data reproducing apparatus including an encryption means, that is "an encryption system detection", for encrypting the data reproduced by the reproducing means (column 5, line 45-50); and the compressed picture data or compressed speech data, recorded on this optical disc D, is encrypted by a predetermined encrypting key, that is "for detecting whether the video or audio information recorded in said storage medium is encrypted or not" (column 2, line 8-10)]. Furthermore, referring to Figure 4, the watermark detection/re-encoding unit, that is "an

electronic watermark detection", detects the copyright control information superimposed on the picture data by watermark processing, whereby "the incoming stream is not encrypted" is considered to include in this watermark detection unit. The detected copyright control information specifies one of "copy free", "one copy", "no more copy", or "never copy". The watermark detection/re-encoding unit sends the detected copyright control information to the output controller (column 9, line 66-67 and column 10, line 1-6). In addition, sufficient reason of combining has been given in the rejection: that the AKE (Authentication and Key Exchange) Subsystem is responsible for implementing the protocols which are used to ensure that devices exchanging protected content are compliant by way of authentication (column 9, line 30-40).

Applicant further argues that:

"In more details of this, as the encryptions or ciphers, the following may be applied onto the signal recorded on the disk; for example, CSS for the DVD-ROM, CPRM for the DVD-RAM, and CPPM for the DVD-Audio, etc. Thus, the encryptions or ciphers differ in the kinds thereof. According to the present invention, determining the difference of the encryption system, in particular, in the kind thereof, the reproduction of the disk is stopped if the encryption system is not that which is determined to the disk. Namely, Applicant respectfully submits that the present invention is so different from the disclosure of the cited Kori reference."

Examiner maintains that:

Referring to Figure 6, to the third CSS decoder 51, control data for copyright control is sent from the data processing device 60 via an input interface, not shown. This control data is already encrypted using algorithms or encryption keys different from those for the picture data etc and the media type information. This third CSS decoder 51 performs corresponding decrypting operations to halt, that is "to stop", the optical disc reproducing operation, based on the control data contents (column 12, lines 36-43).

Applicant further argues that:

"Regarding the "information analysis means" in Claim 2, it is described that it is known whether it is regular or not, from the description of the cited

Kori reference that the copy restriction information is superimposed on the video signal. However, according to the present invention, what is disclosed therein is a means for determining whether it is a correct or regular stream of the MPEG 2. As an example of the advantage of Applicant's invention, an electronic watermark (hereinafter, "WM") cannot be detected from MPEG 2 when there is a simple changing of the format of the MPEG 2 a little bit, for example, by copying it into a recording medium illegally. According to Applicant's advantageous invention, it is determined whether a reproduced stream is a correct MPEG 2 stream or not. If not, reproduction/copying can be prohibited. With this, Applicant respectfully submits that the present invention differs from the cited Kori reference."

Examiner maintains that:

There are superimpose on the picture data "copy free", specifying that picture or music data recorded on the recording medium or transmitted can be copied, "one copy", specifying that only one copying operation is possible, "no more copy" specifying that data has been copied from the above "one copy" data (column 8, line 45-50), or "never copy" specifying that copying cannot be permitted (column 8, line 50-51).

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thanhnga (Tanya) Truong whose telephone number is 703-305-0327.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Vu can be reached on 703-305-4393. The fax phone numbers for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

TBT
January 21, 2004



KIM VU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100